APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,130	12/18/2001	Takashi Mochizuki	Q67762	7342

23373 7590 08/09/2006		EXAMINER
SUGHRUE MION, PLLC		DEAN, RAYMOND S
2100 PENNSYLVANIA AVENUE, N.W.		

ART UNIT	PAPER NUMBER
2618	

SUITE 800
WASHINGTON, DC 20037

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 28* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 30,

2006 has been entered.

Response to Arguments

2.   Applicant's arguments filed March 28, 2006 have been fully considered but they

are not persuasive.

Examiner respectfully disagrees with Applicant's assertion on Page 16, 2nd

Paragraph of the Remarks "Contrary to the Examiner's interpretation, Dabak does not

suggest that the base stations that are not selected will necessarily ...". Dabak teaches

a site selection scheme in which the data transmission from the non-selected base

stations are terminated for the **next frame**, which means that during the following

frames said non-selected base stations will start transmitting data again. The selection

process repeats and another base station is selected with the non-selected base

stations terminating data transmission for the next frame. The non-selected base

stations will transmit data again at a later point in time after a particular base station is

selected thus giving rise to the need for the site selection process to be repeated.

Toskala further teaches a site selection method in which a plurality of base

stations involved in soft handoff are transmitting on the Dedicated Physical Data

Channel (DPDCH) prior to site selection. One of these base stations will be selected as

the primary base station with the remaining base stations being non-primary (non-

selected). In other words, the non-selected base stations will be transmitting on the

DPDCH prior to site selection (See Toskala, Col. 10 lines 22 – 29, in order for the

DPDCH to be switched off at site selection there must be transmission on the DPDCH

prior to site selection). Toskala teaches a typical WCDMA system, which is a mobile

radio system. The radio channels in mobile radio systems are subject to a myriad of

corrupting factors such as noise, multipath fading, and interference from adjacent

channel communications. These corrupting factors can corrupt data or information that

is transmitted. Since Toskala teaches a typical mobile radio system the data

transmitted in the Toskala system will be subject to the same corruption thus there will

be scenarios in which data such as the cell ID information will be corrupted. If the cell

ID is corrupted unintelligible information can be received by the base stations thus

giving rise to a scenario where the non-selected base stations will continue transmitting

on the DPDCH as opposed to terminating the transmission on the DPDCH. If, however,

the cell ID is not corrupted the non-selected base stations will terminate their

transmissions on the DPDCH. Toskala therefore teaches wherein said other base

stations terminate transmission of user data to said mobile terminal if said identification,

which is transmitted by said mobile terminals is properly received at the other base

stations, and said other base stations continue to transmit user data after said selecting

of the first base station if said identification of the selected first base station transmitted

by said mobile terminal is not properly received at the other base stations, wherein said

other base stations transmit user data to said mobile terminal prior to the selecting of

said first base station, and said other base stations do not properly receive said

identification of the selected first base station and continue to transmit without

terminating transmission of user data.

Examiner respectfully disagrees with Applicant's assertion on Page 18, 1st

Paragraph "Toskala does not teach or suggest modifying the transmission power of the

downlink signals ..." for the same reasons set forth in the Office Action dated December

30, 2005, "Response To Arguments", "Regarding Claims 1, 18". Toskala teaches a

closed loop power control scheme during soft handoff which comprises the mobile

sending TPC commands to the base stations involved in the soft handoff. The TPC

commands are based on the measured power of the signals transmitted by said base

stations. Toskala references 3G TS 25.214 v 3.1.1 (See Toskala, Col. 10 line 20),

which teaches power control during soft handoff in sections 5.2.1.1 and 5.2.1.2).

Regarding Claim 6

Examiner respectfully disagrees with Applicant's assertion on Page 20, 3rd

Paragraph "Moreover, as evidenced by the foregoing, neither Dabak nor Toskala ..." for

the same reasons set forth above. Examiner respectfully disagrees with Applicant's

assertion on Page 21, 2nd Paragraph "Therefore, Roxbergh, even assuming ...".

Roxbergh teaches demodulating, at the mobile terminal, user data from said selected

first base station by combining the downlink signal of the selected first base station and

the downlink signals from said other base stations not selected by said mobile terminal

(Figures 2A, 2B, Column 3 lines 66 – 67, Column 4 lines 1 – 12, lines 21 – 27, in one

case base station 10 is the selected base station and in another case base station 11 is

the selected base station, the base stations that are not selected are the other base

stations).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 18, 25, and 27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dabak (US 6,862,275) in view of Toskala et al. (US 6,650,905).

Regarding Claim 1, Dabak teaches a transmission power control method for

controlling the transmission power of downlink signals from base stations to a mobile

terminal in a mobile communication system, comprising the steps of: selecting, at the

mobile terminal, a first base station, said first base station transmitting user data in a

downlink signal with a preferred reception quality (Column 5 lines 50 – 67, Column 6

lines 1 – 11); determining, at the mobile terminal, transmission power of downlink

signals from other base stations not selected by said mobile terminal, said other base

stations transmitting user data in said downlink signals to the mobile terminal after the

identification of the selected first base station is transmitted (Column 6 lines 2 – 7, lines

64 – 67, Column 7 lines 1 – 4, the base stations (504,506) are the base stations that are

not selected, said base stations will resume transmitting data symbols in the

subsequent data frames, which are the frames after the base station (502) is selected);

sending information, from the mobile terminal to the base station, to modify the

transmission power of the downlink signals of the base station based on the determined

transmission power of the downlink signals from said base station (Column 5 lines 32 –

49).

Dabak does not teach transmitting, from the mobile terminal, identification of the

selected first base station to the first base station and other base stations not selected

by said mobile terminal, sending information from the mobile terminal to the other base

stations, to modify the transmission power of the downlink signals of the base stations

based on the determined transmission power of the downlink signals from said base

stations not selected by said mobile terminal, wherein said other base stations terminate

transmission of user data to said mobile terminal if said identification, which is

transmitted by said mobile terminals is properly received at the other base stations, and

said other base stations continue to transmit user data after said selecting of the first

base station if said identification of the selected first base station transmitted by said

mobile terminal is not properly received at the other base stations, wherein said other

base stations transmit user data to said mobile terminal prior to the selecting of said first

base station, and said other base stations do not properly receive said identification of the selected first base station and continue to transmit without terminating transmission of user data.

Toskala teaches transmitting, from the mobile terminal, identification of the selected first base station to the first base station and other base stations not selected by said mobile terminal (Column 10 lines 22 – 25). Toskala further teaches sending information, from the mobile terminal to the other base stations, to modify the transmission power of the downlink signals of the base stations based on the determined transmission power of the downlink signals from said other base stations not selected by said mobile terminal (Column 10 lines 30 – 38, lines 43 – 50, See also Document 3G TS 25.214 v 3.1.1 Sections 5.2.1.1 and 5.2.1.2). Toskala further teaches wherein said other base stations terminate transmission of user data to said mobile terminal if said identification, which is transmitted by said mobile terminals is properly received at the other base stations, and said other base stations continue to transmit user data after said selecting of the first base station if said identification of the selected first base station transmitted by said mobile terminal is not properly received at the other base stations (Col. 10 lines 22 – 29, See Response To Arguments Above), wherein said other base stations transmit user data to said mobile terminal prior to the selecting of said first base station, and said other base stations do not properly receive said identification of the selected first base station and continue to transmit without terminating transmission of user data (Col. 10 lines 22 – 29, See Response To Arguments Above).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the power control method taught by Toskala in the system of

Dabak for the purpose of controlling transmission power in SSDT mode as taught by

Toskala.

Regarding Claim 18, Dabak teaches a mobile terminal that controls transmission

power of downlink signals from base stations in a mobile communication system,

comprising: base station selection means for selecting a first base station that is

transmitting user data in a downlink signal with a preferred reception quality (Column 5

lines 50 – 67, Column 6 lines 1 – 11), downlink signal weight decision means for

determining transmission power of downlink signals from other base stations not

selected by said mobile terminal, said other base stations transmitting user data in said

downlink signals to the mobile terminal after the identification of the selected first base

station is transmitted (Column 6 lines 2 – 7, lines 64 – 67, Column 7 lines 1 – 4, the

base stations (504,506) are the base stations that are not selected, said base stations

will resume transmitting data symbols in the subsequent data frames, which are the

frames after the base station (502) is selected);

Dabak does not teach transmission means for transmitting, from the mobile

terminal, identification of the selected first base station to the first base station and other

base stations not selected by said mobile terminal and a downlink TPC command

decision means for using the downlink signals from said other base stations to decide

whether transmission power of said other base stations is excessive or insufficient, and

to instruct an increase or decrease of said transmission power based on the determined

transmission power of the downlink signals from said other base stations not selected

by said mobile terminal, wherein said other base stations terminate transmission of user

data to said mobile terminal if said identification, which is transmitted by said mobile

terminals is properly received at the other base stations, and said other base stations

continue to transmit user data after said selecting of the first base station if said

identification of the selected first base station transmitted by said mobile terminal is not

properly received at the other base stations, wherein said other base stations transmit

user data to said mobile terminal prior to the selecting of said first base station, and said

other base stations do not properly receive said identification of the selected first base

station and continue to transmit without terminating transmission of user data.

Toskala teaches transmission means for transmitting, from the mobile terminal,

identification of the selected first base station to the first base station and other base

stations not selected by said mobile terminal (Column 10 lines 22 – 25) and a downlink

TPC command decision means for using the downlink signals from said other base

stations to decide whether transmission power of said other base stations is excessive

or insufficient, and to instruct an increase or decrease of said transmission power based

on the determined transmission power of the downlink signals from said other base

stations not selected by said mobile terminal (Column 10 lines 30 – 38, lines 43 – 50,

See also Document 3G TS 25.214 v 3.1.1 Sections 5.2.1.1 and 5.2.1.2). Toskala further

teaches wherein said other base stations terminate transmission of user data to said

mobile terminal if said identification, which is transmitted by said mobile terminals is

properly received at the other base stations, and said other base stations continue to

transmit user data after said selecting of the first base station if said identification of the

selected first base station transmitted by said mobile terminal is not properly received at

the other base stations (Col. 10 lines 22 – 29, See Response To Arguments Above),

wherein said other base stations transmit user data to said mobile terminal prior to the

selecting of said first base station, and said other base stations do not properly receive

said identification of the selected first base station and continue to transmit without

terminating transmission of user data (Col. 10 lines 22 – 29, See Response To

Arguments Above).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the power control method taught by Toskala in the system of

Dabak for the purpose of controlling transmission power in SSDT mode as taught by

Toskala.

Regarding Claims 25, 27, Dabak in view of Toskala teaches all of the claimed

limitations recited in Claims 1, 18. Dabak further teaches wherein said other base

stations not selected by the mobile terminal transmit user data to the mobile terminal

and transmit pilot data after the identification of the selected first base station is

transmitted (Column 6 lines 2 – 7, lines 64 – 67, Column 7 lines 1 – 4, the base stations

(504,506) are the base stations that are not selected, said base stations will resume

transmitting data symbols in the subsequent data frames, which are the frames after the

base station (502) is selected). Toskala further teaches a downlink dedicated physical

channel and a downlink dedicated control channel (Column 10 lines 43 – 50). Toskala

further teaches wherein said other base stations not selected by the mobile terminal,

which do not properly receive said identification of the selected first base station and

continue to transmit without terminating transmission of user data (Col. 10 lines 22 – 29,

See Response To Arguments Above)

5.   Claims 2 – 5 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Dabak (US 6,862,275) in view of Toskala et al. (US 6,650,905) as applied to

Claims 1, 18 above, and further in view of Mohebbi (US 6,603,971).

Regarding Claim 2, Dabak in view of Toskala teaches all of the claimed

limitations recited in Claim 1. Dabak in view of Toskala does not teach estimating uplink

reception quality of said other base stations.

Mohebbi teaches estimating uplink reception quality of base stations (Column 9

lines 12 – 15).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the estimation method taught by Mohebbi in the system of

Dabak in view of Toskala for the purpose of reducing the backhaul load in the fixed

network as taught by Mohebbi.

Regarding Claim 3, Dabak in view of Toskala and in further view of Mohebbi

teaches all of the claimed limitations recited in Claim 2. Mohebbi further teaches

wherein signal weights are determined for the downlink signals from said other base

stations based on the uplink reception quality (Column 6 lines 63 – 67, Column 7 lines 1

– 2, Column 9 lines 12 – 15, the base station that experiences the best uplink reception

quality can be the highest ranked base station, the ranking is the weighting).

Regarding Claim 4, Dabak in view of Toskala and in further view of Mohebbi teaches all of the claimed limitations recited in Claim 2. Dabak further teaches a base station that is transmitting user data to the mobile terminal after the first base station is selected (Column 6 lines 2 – 5, lines 64 – 67, Column 7 lines 1 – 4, the base stations (504,506) are the base stations that are not selected, said base stations will resume transmitting data symbols in the subsequent data frames, which are the frames after the base station (502) is selected). Toskala further teaches calculating a correlation between an increase or decrease in transmission power instructed by a transmission power control, and an increase or decrease in transmission power of a downlink signal received from a base station wherein said correlation is calculated based on a difference of the increase or decrease of the transmission power instructed and the increase or decrease in the transmission power of the downlink signal received (Column 10 lines 30 – 38, lines 43 – 50, See also Document 3G TS 25.214 v 3.1.1 Sections 5.2.1.1 and 5.2.1.2, there is a correlation between the transmission power control and the transmission power of the downlink signal because the transmit power control controls the transmission power of the downlink, in a closed loop power control system, such as the one used according to the 3G TS 25.214 v 3.1.1, there will be a difference between the actual change in transmission power and the TPC step due to the characteristics of the electronic circuits used in said closed loop method).

Regarding Claims 5, 23, Dabak in view of Toskala teaches all of the claimed limitations recited in Claims 1, 18. Toskala further teaches a signal obtained by combining downlink signals from said other base stations is used to determine whether

the transmission power of the other base stations is excessive or insufficient (Figure 11,

Column 7 lines 66 – 67, Column 8 lines 1 – 32, Column 10 lines 43 – 50).

Dabak in view of Toskala does not teach weighted downlink signals.

Mohebbi teaches weighted downlink signals (Column 6 lines 63 – 67, Column 7

lines 1 – 2, the ranking is the weighting).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the weighting method taught by Mohebbi in the system of

Dabak in view of Toskala for the purpose of reducing the backhaul load in the fixed

network as taught by Mohebbi.

6.   Claims 6, 19, 26, and 28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dabak (US 6,862,275) in view of Toskala et al. (US 6,650,905) and in

further view of Roxbergh (US 6,553,016).

Regarding Claim 6, Dabak teaches a receiving method for demodulating user

data in a downlink signal form base stations to a mobile terminal in a mobile

communications system, comprising the steps of: selecting, at the mobile terminal, a

first base station, said first base station transmitting user data in a downlink signal

having a preferred reception quality (Column 5 lines 50 – 67, Column 6 lines 1 – 11),

other base stations transmitting user data after the identification of the selected first

base station is transmitted (Column 6 lines 2 – 7, lines 64 – 67, Column 7 lines 1 – 4,

the base stations (504,506) are the base stations that are not selected, said base

stations will resume transmitting data symbols in the subsequent data frames, which are the frames after the base station (502) is selected).

Dabak does not teach transmitting, from the mobile terminal, identification of the selected first base station to the first base station and other base stations not selected by said mobile terminal and using the downlink signals, from said other base stations not selected by said mobile terminal to demodulate, at the mobile terminal, user data from said selected first base station by combining the downlink signal of the selected first base station and the downlink signals form said other base stations not selected by said mobile terminal, wherein said other base stations terminate transmission of user data to said mobile terminal if said identification, which is transmitted by said mobile terminals is properly received at the other base stations, and said other base stations continue to transmit user data after said selecting of the first base station if said identification of the selected first base station transmitted by said mobile terminal is not properly received at the other base stations, wherein said other base stations transmit user data to said mobile terminal prior to the selecting of said first base station, and said other base stations do not properly receive said identification of the selected first base station and continue to transmit without terminating transmission of user data.

Toskala teaches transmitting, from the mobile terminal, identification of the selected first base station to the first base station and other base stations not selected by said mobile terminal (Column 10 lines 22 – 25). Toskala further teaches wherein said other base stations terminate transmission of user data to said mobile terminal if said identification, which is transmitted by said mobile terminals is properly received at the

other base stations, and said other base stations continue to transmit user data after

said selecting of the first base station if said identification of the selected first base

station transmitted by said mobile terminal is not properly received at the other base

stations (Col. 10 lines 22 – 29, See Response To Arguments Above), wherein said

other base stations transmit user data to said mobile terminal prior to the selecting of

said first base station, and said other base stations do not properly receive said

identification of the selected first base station and continue to transmit without

terminating transmission of user data (Col. 10 lines 22 – 29, See Response To

Arguments Above).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the base station selection method taught by Toskala in the

system of Dabak as an alternative means for informing wireless network entities as to

what base station has been selected during SSDT mode as taught by Toskala.

Dabak in view of Toskala does not teach using the downlink signals, from said

other base stations not selected by said mobile terminal to demodulate, at the mobile

terminal, user data from said selected first base station by combining the downlink

signal of the selected first base station and the downlink signals form said other base

stations not selected by said mobile terminal.

Roxbergh teaches demodulating, at the mobile terminal, user data from said

selected first base station by combining the downlink signal of the selected first base

station and the downlink signals from said other base stations not selected by said

mobile terminal (Figures 2A, 2B, Column 3 lines 66 – 67, Column 4 lines 1 – 12, lines

21 – 27, in one case base station 10 is the selected base station and in another case base station 11 is the selected base station, the base stations that are not selected are the other base stations).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the diversity handover method taught by Roxbergh as an alternative handoff means in the system of Dabak in view of Toskala thereby insuring a handover operation without any perceptible disturbance in the voice or data communications as taught by Roxbergh.

Regarding Claim 19, Dabak teaches a mobile terminal for receiving user data in the downlink signal from base stations in a mobile communication system, comprising: base station selecting means for selecting, a first base station that is transmitting user data in a downlink signal with a preferred downlink reception quality (Column 5 lines 50 – 67, Column 6 lines 1 – 11), downlink signal weight decision means for determining transmission power of downlink signals from other base stations not selected by said mobile terminal, said other base stations transmitting user data in said downlink signals to the mobile terminal after the identification of the selected first base station is transmitted (Column 6 lines 2 – 7, lines 64 – 67, Column 7 lines 1 – 4, the base stations (504,506) are the base stations that are not selected, said base stations will resume transmitting data symbols in the subsequent data frames, which are the frames after the base station (502) is selected);

Dabak does not teach transmission means for transmitting, from the mobile terminal, identification of the selected first base station to the first base station and other

base stations not selected by said mobile terminal and data demodulating means for

using downlink signals from said other base stations to demodulate user data from said

first base station by combining the downlink signal of the selected first base station and

the downlink signals from said other base stations not selected by said mobile terminal,

wherein said other base stations terminate transmission of user data to said mobile

terminal if said identification, which is transmitted by said mobile terminals is properly

received at the other base stations, and said other base stations continue to transmit

user data after said selecting of the first base station if said identification of the selected

first base station transmitted by said mobile terminal is not properly received at the other

base stations, wherein said other base stations transmit user data to said mobile

terminal prior to the selecting of said first base station, and said other base stations do

not properly receive said identification of the selected first base station and continue to

transmit without terminating transmission of user data.

Toskala teaches transmission means for transmitting, from the mobile terminal,

identification of the selected first base station to the first base station and other base

stations not selected by said mobile terminal (Column 10 lines 22 – 25). Toskala further

teaches wherein said other base stations terminate transmission of user data to said

mobile terminal if said identification, which is transmitted by said mobile terminals is

properly received at the other base stations, and said other base stations continue to

transmit user data after said selecting of the first base station if said identification of the

selected first base station transmitted by said mobile terminal is not properly received at

the other base stations (Col. 10 lines 22 – 29, See Response To Arguments Above),

wherein said other base stations transmit user data to said mobile terminal prior to the

selecting of said first base station, and said other base stations do not properly receive

said identification of the selected first base station and continue to transmit without

terminating transmission of user data (Col. 10 lines 22 – 29, See Response To

Arguments Above).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the base station selection method taught by Toskala in the

system of Dabak as an alternative means for informing wireless network entities as to

what base station has been selected during SSDT mode as taught by Toskala.

Dabak in view of Toskala does not teach data demodulating means for using

downlink signals from said other base stations to demodulate user data from said first

base station by combining the downlink signal of the selected first base station and the

downlink signals from said other base stations not selected by said mobile terminal.

Roxbergh teaches data demodulating means for using downlink signals from said

other base stations to demodulate user data from said first base station by combining

the downlink signal of the selected first base station and the downlink signals from said

other base stations not selected by said mobile terminal (Figures 2A, 2B, Column 3

lines 66 – 67, Column 4 lines 1 – 12, lines 21 – 27, in one case base station 10 is the

selected base station and in another case base station 11 is the selected base station,

the base stations that are not selected are the other base stations).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the diversity handover method taught by Roxbergh as an

alternative handoff means in the system of Dabak in view of Toskala thereby insuring a

handover operation without any perceptible disturbance in the voice or data

communications as taught by Roxbergh.

Regarding Claims 26, 28, Dabak in view of Toskala and in further view of

Roxbergh teaches all of the claimed limitations recited in Claims 6, 19. Dabak further

teaches wherein said other base stations not selected by the mobile terminal transmit

user data to the mobile terminal and transmit pilot data after the identification of the

selected first base station is transmitted (Column 6 lines 2 – 7, lines 64 – 67, Column 7

lines 1 – 4, the base stations (504,506) are the base stations that are not selected, said

base stations will resume transmitting data symbols in the subsequent data frames,

which are the frames after the base station (502) is selected). Toskala further teaches a

downlink dedicated physical channel and a downlink dedicated control channel (Column

10 lines 43 – 50). Toskala further teaches wherein said other base stations not selected

by the mobile terminal, which do not properly receive said identification of the selected

first base station and continue to transmit without terminating transmission of user data

(Col. 10 lines 22 – 29, See Response To Arguments Above)

7.   Claims 7 – 10, 20 – 22, and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dabak (US 6,862,275) in view of Toskala (US 6,650,905) in view of

Roxbergh (US 6,553,016), as applied to Claims 6, 19 above, and further in view of

Mohebbi (US 6,603,971).

Regarding Claims 7, 20, Dabak in view of Toskala and in further view of

Roxbergh teaches all of the claimed limitations recited in Claims 6, 19. Dabak in view of

Toskala and in further view of Roxbergh does not teach determining estimated uplink

reception quality of said other base stations.

Mohebbi teaches determining estimated uplink reception quality of base stations

(Column 9 lines 12 – 15).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the estimation method taught by Mohebbi in the system of

Dabak in view of Toskala and in further view of Roxbergh for the purpose of reducing

the backhaul load in the fixed network as taught by Mohebbi.

Regarding Claims 8, 21, Dabak in view of Toskala in view of Roxbergh and in

further view of Mohebbi teaches all of the claimed limitations recited in Claims 7, 20.

Mohebbi further teaches wherein signal weights are determined for the downlink signals

from said other base stations based on the uplink reception quality (Column 6 lines 63 –

67, Column 7 lines 1 – 2, Column 9 lines 12 – 15, the base station that experiences the

best uplink reception quality can be the highest ranked base station, the ranking is the

weighting).

Regarding Claims 9, 22, Dabak in view of Toskala in view of Roxbergh and in

further view of Mohebbi teaches all of the claimed limitations recited in Claims 7, 20.

Toskala further teaches calculating a correlation between an increase or decrease in

transmission power instructed by a transmission power control, and an increase or

decrease in transmission power of a downlink signal received from a base station that is

transmitting user data to the mobile terminal after the first base station is selected

wherein said correlation is calculated based on a difference of the increase or decrease

of the transmission power instructed and the increase or decrease in the transmission

power of the downlink signal received (Column 10 lines 30 – 38, lines 43 – 50, See also

Document 3G TS 25.214 v 3.1.1 Sections 5.2.1.1 and 5.2.1.2, there is a correlation

between the transmission power control and the transmission power of the downlink

signal because the transmit power control controls the transmission power of the

downlink, in a closed loop power control system, such as the one used according to the

3G TS 25.214 v 3.1.1, there will be a difference between the actual change in

transmission power and the TPC step due to the characteristics of the electronic circuits

used in said closed loop method)

Regarding Claims 10, 24, Dabak in view of Toskala and in further view of

Roxbergh teaches all of the claimed limitations recited in Claims 6, 19. Roxbergh

further teaches wherein a signal obtained by combining downlink signals from the other

base stations is used for demodulating the user data from said first base station

(Figures 2A, 2B, Column 3 lines 66 – 67, Column 4 lines 1 – 12, lines 21 – 27, in one

case base station 10 is the selected base station and in another case base station 11 is

the selected base station).

Dabak in view of Toskala and in further view of Roxbergh does not teach

weighted downlink signals.

Mohebbi teaches weighted downlink signals (Column 6 lines 63 – 67, Column 7

lines 1 – 2, the ranking is the weighting).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the weighting method taught by Mohebbi in the system of

Dabak in view of Toskala and in further view of Roxbergh for the purpose of reducing

the backhaul load in the fixed network as taught by Mohebbi.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Raymond S. Dean whose telephone number is 571-272-

7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
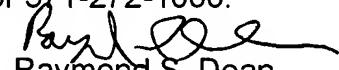
Raymond S. Dean
July 25, 2006
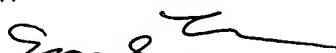
EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600